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THE
CULTIVATION
OF
MEDICAL SCIENCE AND ART.

AN ORATION

DELIVERED BEFORE THE
MEMBERS OF THE HUNTERIAN SOCIETY,

On the 10th February, 1864.

BY

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MR. PRESIDENT AND GENTLEMEN,

In undertaking, in compliance with the request of the Council of this Society, to deliver on this occasion the annual oration, I was not insensible to the difficulties incidental to the task imposed on me. Of these the most prominent, with the exception of my own incompetency, had reference to the choice of an appropriate subject. The domain of medicine is so extensive, its aspect so varied, and its objects of interest so numerous, that I felt in doubt as to the point of view from which it could be most advantageously regarded. A general survey served to suggest that the consideration of the circumstances which had influenced, adversely or favourably, its due cultivation,

and upon the operation of which its present condition is dependent, would constitute a subject which might prove interesting to an audience such as the present. To treat such a subject, however, in a complete manner, would be incompatible with the limits of an address of ordinary duration, and would in all probability be wearisome. I therefore preferred to consider it less comprehensively, but, I trust, more in accordance with the tastes of those who are actively engaged in medical practice.

Among the circumstances which have impeded the successful cultivation of the science and art of medicine, few have exercised a more potent influence than the habit of substituting a belief in received opinions for the accurate observation of the phenomena of disease and the results of treatment. This is unavoidable, and therefore excusable, at the commencement of professional life, but is not so at any subsequent period. It is much more easy, and to some minds much more pleasant, to put credence in the dicta of others than to examine the grounds on which those dicta are based, or to ascertain their accuracy by observation and experiment. Some, indeed, even doubt the evidence of their experience, when it is opposed to the opinions of others. This tendency of the professional mind is amusingly satirized in Molière's comedy, entitled "*L'Amour Médecin*." In this there occurs a dialogue between a physician and a maid-servant, in which the former pertinaciously maintains that a man, who died on the sixth day of his illness, must be still alive, on the sole ground that Hippocrates had asserted that the

disease, with which the patient had suffered, terminated only on the fourteenth or twenty-first day : an argument, the force of which, it is scarcely necessary to remark, the maid-servant does not appreciate.

The practice of treating all diseases according to prescribed and recognised methods, without reference to the result, has been and is still most injurious to the true interests of the medical profession. Those who adopt it seem to consider that if they only follow "*le courant des règles*," they discharge their duty to their patients, and their obligations to science. A little reflection, however, ought to convince them that this is not the truth. If the prescribed routine of treatment is invariably successful, they are justified in uniformly pursuing it, unless some method equally beneficial, but more expeditious in its operation, be discovered. If, however, it is only partially successful, nugatory, or injurious in its results, it behoves the medical philosopher to examine it with the greatest attention, in order to ascertain and correct its imperfections. If, from the nature of the plan pursued, this is impracticable, it is his duty to devise or to seek a new method of treatment, and, provided it is based on reasonable grounds, or adequately supported by the experience of others, to put it to the test of experiment, and to adopt or reject it according as it succeeds or fails. The practice thus commended widely differs from that which is engendered by a mere love of novelty, which is the incentive of those who "prove all things," but unhappily neglect to "hold fast that which is good."

We may, indeed, gentlemen, congratulate ourselves

that we are members of a profession which is, in the truest sense of the word, liberal, being neither trammelled by formularies, nor bound by precedents, so that we can readily accept the truth, however much it may be at variance with preconceived or established notions. The science of medicine is eminently progressive, so that those who cultivate it must be prepared at any cost to abandon their most cherished opinions, when those opinions have been shown to be unreasonable. Before doing so, however, they are justified in exacting the most rigorous proof of which the subject is susceptible; otherwise, their belief is liable to be disturbed by every wind of strange doctrine, and never to experience security and repose. Most unenviable is the mental state of those to whom the health and the lives of the community are entrusted, who have no sincere belief in the principles which they profess, or in the art which they practise. The only scepticism which is justifiable is that which is embodied in the sentiment

“to be once in doubt
Is—once to be resolved,”

because it induces an eager pursuit of Truth, whenever and wherever a glimpse of her form is caught, and is satisfied only when she has been found.

Imperfect observation and defective analysis of morbid phenomena have materially impaired the due cultivation of medical science and art. When we consider how numerous have been the observers, and how large the mass of facts submitted to them, the scantiness and uncertainty of our medical knowledge must excite not only regret but surprise. A careful review of the progress of medicine will justify the conclusion that its

imperfections are dependent, in part at least, on the carelessness or inaptitude for observation of many of its cultivators. Of the numerous illustrations in proof of the truth of this statement which suggest themselves to our notice, one of the most pertinent is furnished by the history of our knowledge of continued fevers. For a long time the phenomena of fever had been subjected to the observation of many apparently competent to form a just estimate of their importance and relative connections. Yet, until comparatively recently, few subjects within the range of medical science were involved in greater darkness and confusion. By the careful observation of facts in their natural correlation, what was formerly a chaotic mass has been reduced to order and regularity. Various forms of cutaneous eruption, diarrhoea, symptoms of cerebral and other visceral disorders, disease of the agminate and solitary follicles of the ileum and other morbid lesions, had previously attracted attention, but their several affinities were undetected. Thus, though the distinguishing features of typhoid, typhus, and relapsing fevers, had been long regarded by many observers, yet their true expression was unrecognised. It has, indeed, been asserted that, within the last twenty or thirty years, continued fevers have changed their characters, and that the forms now observed did not formerly exist. All enquiry has, however, failed to sustain this opinion, and has only served to prove that their non-recognition was due to want of proper observation.

One result of the imperfect observation and defective analysis of morbid phenomena has been, that diseases

possessing certain similar general characters, yet whose affinities are such as scarcely to justify their juxtaposition within the boundaries of near relationship, have been supposed to partake of a common nature, and have consequently been grouped together under a common name, and have, in many instances, been subjected to a common treatment. Thus, under the term *delirium tremens*, have been included diseases resembling each other in the presence of delirium and muscular tremors, yet differing in their origin, their essential symptoms, and their therapeutical indications. Again, acute and gonorrhœal rheumatism have been regarded as varieties of the same disease, simply because they are accompanied by pains in the limbs and joints, although they differ in their origin, their nature, their characteristic symptoms, and their amenability to treatment.

An undue regard for hypotheses and theories has impeded the successful cultivation of medical science and art. From the earliest dawn of medical knowledge to the present day, attempts have been made, frequently with more zeal than discretion, to explain the phenomena of disease, and the actions of remedies. The construction of hypotheses and theories to this end has, in many instances, acted injuriously by diverting attention from the careful observation of disease and its treatment to the support of opinions which had no other foundation than the imagination of their authors. The result has been that facts have been made to accord with theories, and not theories to represent facts. Intellectually "all looks yellow to the jaundiced eye," so that facts regarded with prejudice assume

an appearance which is unnatural and deceptive. Thus, for example, when Dr. Churchill had assumed that "the immediate cause, or at least an essential condition of the tubercular diathesis, consists in the diminution in the system of phosphorus in an oxidizable state," and had inferred that "the specific remedy for this disease is a preparation of phosphorus at the lowest possible degree of oxidation," he experienced no difficulty in finding that the effects of the hypo-phosphites were precisely those which he had anticipated. Unfortunately, however, when employed by other observers, as Drs. Quain, Cotton, and Risdon Bennett, these agents did not manifest any specific or anti-tubercular action whatever, and proved but sorry and inefficient substitutes for those more commonplace remedies, cod-liver oil, quinine, and iron.

All attempts to discover a universal principle in medicine have failed, because the causes and phenomena of disease, and the actions of remedies, are so numerous and dissimilar that no single theory is comprehensive enough to embrace them all. Take, by way of illustration, one of the most modern general theories, namely, that enunciated by Dr. T. King Chambers, in his work entitled "The Renewal of Life." Dr. Chambers affirms that "disease is in all cases not a positive existence, but a negation; not a new excess of action, but a deficiency; not a manifestation of life, but a partial death; and therefore the business of the physician is directly or indirectly not to take away material, but to add; not to diminish function, but to give it play; not to weaken, but to renew life." In

reference to this theory, it is sufficient to remark, that great ingenuity is required to prove that scabies is not "a positive existence, but a negation;" that hypertrophy of the heart is due to "deficiency of action;" and that the beneficial effects of leeching and cupping (which Dr. Chambers himself admits) are dependent on the addition, and not on the abstraction of material.

It is the abuse, and not the proper use, of hypotheses and theories, which is prejudicial to the successful cultivation of the science and art of medicine. Hypotheses and theories are useful in affording a rational explanation or representation of certain phenomena, and in associating them in the memory in their natural order and affinity. They also serve a higher purpose when legitimately employed, as they necessitate a careful examination of all the facts which they affect to explain or represent, and of others analagous to them, and so increase our stock of useful and valuable knowledge. It is when they usurp the importance of the facts, of which they profess to be the exponents, that they occupy a position antagonistic to the progress of truth. "A facility in framing hypotheses," says Sir John Herschel, in his "Preliminary Discourse on the Study of Natural Philosophy," "if attended with an equal facility in laying them aside when they have served their turn, is one of the most valuable qualities a philosopher can possess; while, on the other hand, a bigoted adherence to them, or indeed to peculiar views of any kind, in opposition to the tenor of facts as they arise, is the bane of all philosophy."

Experience is the only ultimate source of our know-

ledge of medicine, as of physical science in general. It is acquired partly by observation, which consists in "noticing facts as they occur, without any attempt to influence the frequency of their occurrence or to vary the circumstances under which they occur," and partly by experiment, which consists in "putting in action causes and agents over which we have control, and purposely varying their combinations and noticing their effects."* The knowledge thus gained frequently has a more extensive influence than that which immediately concerns the instances from which it was derived. It may be the source of inferences involving truths applicable to other phenomena and other circumstances.

To render individual experience available there are needed, in addition to a sufficient number of facts for examination, great powers of observation, the ability to analyze phenomena, an aptitude to deduce inferences from facts, an indisposition to hasty generalisation, and a well regulated imagination. The result is more dependent on the qualifications of the observer than on the number of facts the subject of observation. A small number of facts observed with "patience, sagacity, and judgment," yield more important results than a large number carelessly examined. Moreover the larger the experience of some, the less precise is their knowledge, because the facts which pass under their notice are so numerous, that, by their very multiplicity, they tend to confuse and bewilder the mind. There are those, indeed, who so pass through a pro-

* Sir J. Herschel.

fessional life, that they fail to derive from it those valuable lessons which it is competent to impart. Their experience, to use the simile of a profound thinker, "is like a lamp hung at the stern of a vessel—it illumines the past, but throws no light on the future."

It will be generally conceded that no mistake is more common in medical science than the deduction of inferences from insufficient data. The truth is, that no mistake is more difficult to avoid. For, as Lord Macaulay remarks, in his essay on Lord Bacon, "it is very well to tell men not to be content with a scanty collection of facts. What collection of facts is scanty? Will ten instances do, or fifty, or a hundred? In how many months would the first human beings who settled on the shores of the ocean have been justified in believing that the moon had an influence on their tides? After how many experiments would Jenner have been justified in believing that he had discovered a safeguard against small pox? These are questions to which it would be most desirable to have a precise answer, but unhappily they are questions to which no precise answer can be returned."

As the experience of each individual, however large the sphere of his observation may be, is, relatively, very limited, it is necessary, for his cultivation of medical science and art, that he should avail himself of the experience of others. To do this advantageously, he must adopt certain precautions, otherwise he may altogether fail to attain the object proposed.

Thus, he should disregard the statements of those who are disqualified, by undue preponderance of the

imaginative faculty, for careful and accurate observation, or who are unlikely, from a natural tendency to exaggeration, to give a sober and truthful account of what they observe.

He should also receive with reserve and caution the testimony of those who investigate disease with a theory or hypothesis to support, whenever the conclusions at which they arrive agree with their pre-existent opinions. Such persons too often resemble those theologians who examine the Scriptures in order to extract from them whatever they may find in accordance with their preconceived notions, while they sedulously disregard all that militates against them. They are not only likely to give an imperfect and inaccurate account of the facts submitted to their notice, but are disposed, it may be unconsciously, so to distort them, that their natural expression is altogether altered and perverted. It thus comes to pass that similar phenomena are so interpreted as to support the most opposite opinions. For example, one will regard disease as generally a condition of hyperœmia, suggesting the necessity of depletory measures; another, as a state involving, if not consisting in, an abnormal and excessive waste of tissue, requiring for its repair a liberal supply of food and alcohol; while a third will consider it a process of nature to effect a restoration to health, demanding for its completion nothing but non-interference and good nursing. He who is anxious to improve his medical knowledge should receive with considerable reserve and limitation such opinions regarded as general expressions of facts, of which they are, in truth, but

partial and imperfect representations. A little reflection would suggest to him the probability that each of the theories thus referred to might include a certain amount both of truth and error, as there is nothing in the nature of morbid action to preclude the possibility of its occasional dependence on either of the specified conditions.

With regard to hyperœmia, it is impossible to deny that repletion is occasionally produced or developed as a general and independent condition, and it is reasonable to suppose that this must exert an important influence on morbid action. Whatever the nature of the latter may be, it must be altered or modified by the state of the constitution of the patient. If this is one of plethora, it must impart its characteristic peculiarities to any incidental disease. Formerly hyperœmia was considered to be the *vera causa* of most diseases, while at the present time there is a strong tendency to unduly depreciate its importance, and to doubt the expediency of those depletory measures which it is supposed to necessitate.

No one will question the truth of the statement that disease is frequently accompanied by excessive waste of tissue, which demands the administration of food and stimulants. In many instances the waste is an incidental and not an essential element of the morbid process, so that its prevention or repair does not necessarily exert a curative influence on the disease. The modern method of administering a large amount of food and stimulants for the cure of disease is only a modification of the Brunonian system, and serves to illustrate the ancient proverb that "there is nothing new under the sun." It

requires a strong array of facts to prove that the use of large quantities of alcoholic stimulants, which is opposed to the maintenance of health, is generally necessary to its restoration, when its balance has been disturbed by morbid action. Tested by experience, the treatment of inflammatory and febrile diseases by stimulants contrasts unfavourably with the more ordinary methods of practice. Comparisons instituted between a limited number of cases, treated in different places by different methods, unavoidably involve sources of error; nevertheless the opinion of Dr. Gairdner, that "the recorded mortality from cases of pneumonia and fever occurring under Dr. Todd's care in King's College Hospital would be regarded as excessive in the Edinburgh Royal Infirmary," is entitled to some weight in balancing the evidence for and against the treatment of disease by large doses of alcohol. Moreover, experience has shown that the less severe forms of typhoid and typhus fevers have been aggravated, their duration prolonged, and their progress towards an unfavourable termination accelerated, by excessive alcoholic stimulation; and this possibly, as has been suggested,* by interfering with the metamorphosis of tissue and elimination of poison, which are important constituents of these diseases. It may reasonably be doubted whether the stimulating mode of treatment would not have been considered both irrational and dangerous, if it had been judged by its own inherent merits, irrespective of the high sanction under which it was submitted to the notice of the profession.

* Dr. Brinton on Food, &c.

The necessity of maintaining the *vis vitæ* in most diseases by the administration of nutriment, and, under appropriate circumstances, of stimulants, had been recognized and acted upon by the profession long before the recent revival of the Brunonian system, and fully represents the element of truth which that system contains.

That many diseases, if not interfered with by the "*nimia diligentia medici*," progress towards health, is a fact well known and generally recognized. The "*vis medicatrix naturæ*" exerts an influence too evident to escape notice and attention; yet it would be an act of injustice not to acknowledge our obligations to homœopathy, as a negative method of practice, for increasing our appreciation of the importance of this element in morbid action. To represent it, however, as an agent universal in its operation, is to ascribe to it an amount of power and an extent of influence which do not belong to it. Many diseases, instead of progressing towards health, tend inevitably towards death; while others, without the interposition of medical aid, remain stationary, or increase in severity, so that if it is assumed that this agent is general in its operation, it must be granted that frequently it signally fails in accomplishing its end.

Technical knowledge, experience, and judgment, are requisite to enable the medical practitioner to determine the propriety of trusting the issue of a case to the unassisted efforts of nature. When such a combination of circumstances exists as to render the advisability of any definite method of treatment very doubt-

ful; or when, from a knowledge of the natural course of the disease, or of the peculiarities of the patient, a favourable result may, without medical interference, be reasonably anticipated, the practitioner is warranted in following what has been facetiously and paradoxically termed "the expectant system of treatment." Such conduct is not a manifestation of that form of scepticism which consists in doubting the remedial efficacy of medicines in general: which exalts physiology and pathology to a position of undue pre-eminence, and degrades therapeutics to the mere superintendence of dietetics and of ordinary hygienic arrangements. On the contrary, it is perfectly consistent with a firm belief in the resources of medical art, and does not imply an admission of the truth of the definition that "physic is the art of amusing the patient, while nature cures the disease."

The originators and supporters of theories such as those now adverted to fall into the error of believing them to be more comprehensive than they really are, and view the phenomena of disease and the results of treatment through a medium which imparts to them a colour other than their own. In the medical, as in the ordinary world, a man may ride his hobby as hard as he pleases, but he who mounts behind him should be insensible to the inconvenience and danger which such a proceeding is likely to involve.

If the enquirer after truth should receive with reserve and caution conclusions which agree with, conversely, *cæteris paribus*, he should regard with confidence those which differ from, the antecedent views of their authors. There is in human nature an element which

is designated firmness or obstinacy, according as it is exercised beneficially or injuriously, and which manifests itself frequently in a strong disinclination to a change of opinion. To overcome this requires moral courage, as any alteration of opinion is supposed to imply antecedent inaccuracy of observation or want of judgment. Great credit is therefore due to those who have the boldness to abandon their old opinions, as soon as they find that they are not warranted by facts, and more than ordinary reliance may be placed on the new opinions formed under such circumstances. Thus Drs. Tweedie and Murchison commenced their study of continued fevers with the notion that typhoid and typhus fevers are merely varieties of one disease. Careful observation of, and prolonged acquaintance with, the phenomena of fever, led them, however, in spite of their prejudices, to the same conclusion as that at which Drs. Stewart and Jenner had previously arrived—namely, that typhoid and typhus fevers are distinct and separate diseases, resembling each other in a few non-essential particulars, but differing in their mode of production, their pathology, their characteristic symptoms, and their therapeutical indications. Testimony such as this is most valuable, and may be received with great confidence.

For the proper direction and guidance of experience in the cultivation of the science and art of medicine, two methods have been employed—the empirical and the rational. Both undertake to solve the same problem, given the disease to find the remedy, but each attempts to do so in a different way.

The empirical method does not require an acquaintance

with morbid phenomena more than sufficient for the recognition of their diagnostic value, or a knowledge of the properties and physiological effects of remedies. It simply implies that a disease is relievable or curable by a certain definite treatment, and it does not involve the necessity of affording a rational explanation of the phenomenon. Thus, mercury does not exhibit anything in its chemical properties, or in its physiological action, which would lead us to expect that it would exert a curative influence on syphilis. Nor can we offer any satisfactory account of its *modus operandi*. To say that it is an antidote to the syphilitic poison, is merely to assert that it cures syphilis. To the question why does mercury cure syphilis, we can return no more rational answer, though it is to be hoped we should couch it in more classical Latin, than did Molière's Bachelor of Medicine, when he replied to the question "Why does opium induce sleep?" "Quia est in eo virtus dormitiva"—an answer which, by the profundity of its wisdom, elicited the warm approval of the learned fraternity in whose presence it was delivered. Nevertheless the fact, or as some may say, the assumption, that mercury cures syphilis, constituted the starting point from which the enquiry into the treatment of syphilis proceeded. This has resulted in proving that the only form of primary syphilis which is followed by constitutional symptoms is that which is characterised by adhesive inflammation, and that this is most expeditiously cured, and its consequences most effectually prevented, by the administration of mercury. All other forms of the disease pass off without contaminating the constitution, and do not require any specific treatment.

We can scarcely over-estimate the care, perseverance, and judgment, with which this investigation has been conducted, or appreciate too highly the great improvement in surgical practice which has resulted from it. Many patients, who, if the old system were followed, would be subjected to a course of mercury, are now safely and satisfactorily treated without it; while to those who need the remedy, it is administered in so small a quantity that they are spared the annoyance and suffering produced by profuse salivation. Surgeons, now-a-days, are contented to give mercury so as to induce an amount of salivary and buccal secretion, much less than two or three quarts daily, which Turner, the author of a Treatise on the Venereal Disease, published in the early part of the last century, considered "a good and sufficient discharge."

The rational method starts from much higher vantage ground than the empirical. It requires a knowledge of the nature of morbid phenomena, and of the properties and physiological actions of remedies, and it consists in the application of this knowledge to the prevention, relief, and cure of disease. Thus, acute rheumatism is characterised, in addition to the ordinary symptoms of local inflammation, by fever, accompanied usually by a highly acid state of the cutaneous and renal secretions, and by a tendency to the occurrence of pericarditis and endocarditis; which conditions are supposed to be dependent on or connected with the presence in the blood of a *materies morbi*, probably lactic or lithic acid, and of an excess of fibrin. In this instance the principal indications appear to be to restore the alkaline condition of the system, to

promote the elimination of the *materies morbi*, and to maintain the solubility of the fibrin, and thereby to prevent its deposition on the pericardial and endocardial membranes. Alkalies neutralize acids, act as diuretics, and dissolve fibrin, and therefore seem to fulfil the several indications furnished by a consideration of the phenomena of the disease. Experience has shown that acute rheumatism is most successfully treated, and its cardiac complications most effectually averted, by the administration of large doses of alkalies. In reference to the latter point, it appears that in 194 consecutive cases, under the care of Dr. Fuller, no instance of cardiac complication occurred after the patient had been subjected to alkaline treatment for 24 hours. In 48 cases recorded in the tables of Dr. Dickenson, cardiac affection supervened in one only, and this occurred within 24 hours after the commencement of alkaline treatment. Corroborative testimony has also been borne by Drs. Furnival, Wright, and Chambers. Dr. Furnival, who appears to have preceded Dr. Fuller in the employment of large doses of alkalies in the treatment of acute rheumatism, states that since he has adopted this plan, a period of more than 20 years, he has not met with a single case of supervening cardiac mischief.

If the general experience of the profession should confirm the truth of these observations, we must cordially agree with the remark of Dr. Fuller, that "no step in advance at all equal to it has been made of late years in practical medicine; no change of treatment of any disease can be pointed to which will bear comparison with it in its effect of warding off human suffering and obviating the tendency to untimely death."

In contrasting the empirical and rational methods, it

has been customary to depreciate the former and to extol the latter. If we judge them by an intellectual standard, we must unquestionably award the palm of superiority to the rational method; and as the nature of disease and the actions of remedies are more perfectly understood, we may reasonably look to it as the source whence future improvements in therapeutics are likely to proceed. If, however, we judge them by their results, it would be easy to show that the empirical method is deserving of considerable regard, inasmuch as to it we are indebted for much that is valuable in medical practice. In the examples cited, it would be difficult to decide to which of the two methods we should give the preference, on the score either of the importance of the result obtained or of the degree of approximation to the truth involved in the conclusions deduced. *Finis coronat opus*. In medical art, if the end is attained, the means employed are of secondary consideration.

In the present imperfect state of our knowledge of the causes and nature of healthy and morbid actions, and of the *modus operandi* of medicinal agents, it appears to be an act of presumption to disregard, in accordance with the dictum of a high modern authority,* the conclusions of empirical medicine. When physiology has established its claim to be entitled a sound and comprehensive science; when pathology has unravelled the causes, nature, and phenomena of disease; and when therapeutics has advanced so far as to enable us to predict unerringly and to explain satisfactorily the effects of remedies, we may hope to conduct our treatment of disease on purely rational principles.

* Dr. J. Hughes Bennett.

“ ’Tis a consummation

Devoutly to be wish’d,”

but until it is accomplished, of which unhappily there is no near prospect, we must be content to use all the means and appliances necessary to the relief and cure of disease, without reference to their source or mode of attainment. Facts are proverbially stubborn things, and involve, in modern phraseology, an inexorable logic. If it is a fact that a disease is relievab^{le} or curable by a certain treatment, the mode of its discovery is a matter of minor importance. In truth, both the empirical and rational methods, though differing in their nature, agree in this, that they are judged by the same test, namely, experience, by the results of which their claims to our confidence must be determined.

It is therefore by an intelligent, earnest, and unwearied appeal to experience, that we may hope to obtain new accessions to the domain of medical science and art. In this way at least we may imitate, it must be imperfectly, but it may be successfully, the example of that illustrious man in honour of whose memory this Society is named. By accurate observations, appropriate experiments, and cautious deductions, John Hunter succeeded in so improving surgery, that he raised what was before his time little more than a mechanical art to the dignity of a science. His philosophy, like that of Bacon, was not contented with providing material for intellectual recreation and improvement, but it aimed at increasing the comfort and happiness of the men of his own and subsequent ages. His discoveries entitle him to our praise and gratitude, not only on account of their intrinsic value and importance, but because they laid the foundation for much that is

excellent in modern surgical art. Thus did this faithful "servant of posterity" minister to the wants of future generations. On his pedestal might with truth be inscribed those grand lines—

"O tenebris tantis tam clarum extollere lumen
Qui primus potuisti, illustrans comoda vitæ."

The medical profession, gentlemen, affords an ample field for the cultivation of the intellectual and the growth of the moral powers. The objects which it seeks to attain are the cure of disease and the alleviation of human suffering. It is therefore a noble profession, to be practised in a manly way. It needs not the adventitious aid of mannerism, either in the form of rudeness or of "the pride which apes humility." It needs nothing to commend it to the favour of the public but the substantial benefits which it confers, and it requires of those who practise it adequate knowledge and integrity of purpose. It regards all mean arts and devices, employed to attract attention and enhance reputation, as incompatible with the dignity of its high calling and great mission. In fine, it demands of each of its members that he shall consider his individual interests subordinate to those of the general body; and that, in his intercourse with the public, and in his relations with his fellows, he shall be guided by the strictest principles of professional honour. Each may then realise the sentiment embodied in those noble words of our great dramatist—

"The purest treasure mortal times afford
Is spotless reputation: that away,
Men are but gilded loam or painted clay.
Mine honour is my life: both grow in one;
Take honour from me, and my life is done."